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THE CALIFORNIA INSECTICIDE LAW.

BY

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Manufacturers, importers and dealers in insecticides and fungicides should take notice that in accordance with the new insecticide law, a copy of which is appended hereto, it will be necessary to register on or before the first day of July of each year, beginning in 1911, and obtain from the Secretary of the Board of Regents of the University of California a certificate of registration authorizing the sale of insecticides in the State. They should also file with the Director of the Agricultural Experiment Station of the University of California, a statement under oath of the component parts of the substances to be sold under each name or brand. (Section 12.)

The law also requires the proper labelling of insecticides and fungicides, stating:

1. Name, brand and trade mark if there be any.
2. Name and address of manufacturer, importer or dealer.
3. Place of manufacture.
4. Chemical Analysis.
 - (a) Stating per centages of substances having insecticidal properties.
 - (b) Specifying form in which each is present and materials from which derived (Section 11).
 - (c) Also percentage of inert ingredients (Section 8). When insecticide is sold for less than one-half cent per pound only a general statement is required [Section 11]).

5. The word "Registered" with the number of registry (Section 12).

FEES.

All fees are payable to the Secretary of the Board of Regents of the University of California (Section 18); they are:

Registration Fee \$1.00

Required to be paid on or before the first day of July of each year by each manufacturer, importer, agent or dealer, excepting only those agents whose principals shall have obtained a certificate of registration (Section 12).

Analytical Fee \$1.00

Required of any user of insecticides for each sample submitted for examination or analysis (Section 13).

PURPOSE OF THE ACT.

The object of the insecticide law is to prevent fraud in the manufacture or misrepresentation in the sale of insecticides and fungicides and to give the user just such information as will be necessary to determine the quality of the preparation as an insecticide or fungicide. The misdemeanors specified in the law are classed under the terms "adulteration" and "misbranding."

Adulteration is defined in the case of Paris green and Lead Arsenate as failure to conform to standards specifically stated in the law (Section 7) and in all other cases a substance is considered adulterated (1) if below standard, (2) if substitution has been made, (3) if valuable ingredients have been abstracted, or, (4) if injurious to vegetation when intended for use on plants (Section 7).

The standard of purity is defined as being within 5 per cent. of the quantity given in the analysis on the label of the substances having insecticidal properties (Section 13), thus if a substance is given as 20 per cent., which equals 20 pounds in the hundred, the law requires that it should never fall below 19 pounds, that is, there must be at least 95 per cent. of the percentage shown in the analysis.

Misbranding occurs (1) if an imitation of another article, or, (2) if label is false or deceptive, or (3), if weight or measure is not plainly stated when in package form and in the case of all insecticides and fungicides excepting Paris green and lead arsenate (the standards

of which are defined by law) (*a*) when total and water soluble arsenic are not indicated if present, and (*b*) percentage of inert ingredients is not stated (Section 8).

LABELLING.

The law covers all substances intended for use in combatting insects and fungi (Section 6.) The following suggestions are made regarding the labelling of the more important of these substances:

The requirements of the California Law are identical with those of the U. S. law with the following additions:

1. For each active ingredient the chemical analysis must state
 (*a*) form in which each is present, and (*b*) material from which derived.

The suggestions below will call attention to the cases where the usual statement might not give this information. Where a substance occurs only in one form or may be obtained from only one source the mere name of the ingredient can be supposed to carry this information.

2. The word "Registered" and the number of registry.

So as not to complicate the label the office in charge of the work will use the same serial number as the U. S. guarantee, leaving only the necessity of adding the word "registered," and we would suggest that the addition be in the form "Registered under the California Law."

INSECTICIDES AND FUNGICIDES.

Aceto-arsenite of copper; see arsenicals.

Acid carbolie; see carbolie compounds.

cresylic; see carbolie compounds.

sulphur; see cyanides.

Air slacked lime; see alkalies.

Alkalies and Soaps.

Lye.—Caustic potash, caustic soda.

Label should show:

per cent. of caustic soda (NaOH), if present.

per cent. of caustic potash (KOH), if present.

per cent. of other ingredients.

NOTE: Pure caustic soda or potash contains 100 per cent. NaOH or KOH , respectively.

Potassium carbonate.

Label should show:

per cent. of potassium carbonate (K_2CO_3).

per cent. of other ingredients.

Sal soda.—Carbonate of soda.

Label should show:

per cent. of soda carbonate (Na_2CO_3).

per cent. of other ingredients.

Lime.—Caustic lime, quick lime, hydrated lime, air slacked lime.

Label should show:

per cent of calcium (Ca).

per cent. of magnesium (Mg).

per cent. of carbonic acid (CO_2).

per cent. of other ingredients.

NOTE: Pure lime contains 71.46 per cent. of calcium and no magnesium or carbonic acid. Pure hydrated lime contains calcium in the same proportion with the other ingredients than water and has no magnesium or carbonic acid. Pure air slacked lime may have as high as 44 per cent. of carbonic acid.

Borax, or preparations containing borax as an active ingredient.

Label should show:

per cent. of borax ($2\text{B}_2\text{O}_3 \cdot \text{Na}_2\text{O} + 10\text{H}_2\text{O}$).

per cent. of other ingredients.

Soap.—See also carbolic compounds and oils for specification of other active ingredients.

Label should show :

- per cent. of soda (Na_2O), if present.
- per cent. of potash (K_2O), if present.
- per cent. of other active ingredients.
- per cent. of water.
- per cent. of inert ingredients.

Arsenicals.

Arsenate of Lead.

The standard of purity defined by the law requires :

- (1) Not over 50 per cent. water (unless labeled lead arsenate and water).
- (2) at least $12\frac{1}{2}$ per cent. arsenic acid (As_2O_5).
- (3) not over 0.75 per cent. water soluble arsenic (calculated as As_2O_5).
- (4) nothing added to lower strength or quality (Section 7).

For use in foggy districts along the coast the label should specify per cent. ammonia soluble arsenic (calculated as As_2O_5 , because of danger to foliage.

Paris green.—(Aceto-arsenite of copper).

The standard of purity defined by the law requires :

- (1) At least 50 per cent. arsenious oxid (As_2O_3).
- (2) not over $3\frac{1}{2}$ per cent. water soluble arsenic (calculated as As_2O_3).
- (3) nothing added affecting quality or strength.

Other arsenicals.

The law specifically requires :

- (1) per cent. of arsenic.
- (2) per cent. of water soluble arsenic (both expressed as metallic arsenic).

Label should indicate in what form the arsenic is present and the per cent. of inert substances.

NOTE: The amount of metallic arsenic in As_3O_5 is 74 per cent., and in As_2O_3 78.4 per cent., therefore every percentum of water soluble arsenic expressed as metallic arsenic corresponds with 1.35 per cent. and 1.28 per cent. respectively in arsenate of lead and Paris green. To be as free from water soluble arsenic as lead arsenate the preparation could not have over 0.56 per cent. of arsenic expressed as metallic arsenic, while it might have 2.75 per cent. and come within the limits permitted in Paris green.

Alkaloids.

Tobacco preparations, hellebore, quassia.

Label should show:

per cent. of the alkaloid.

Ammonia; see copper compounds.

Asphalt; see oils.

Benzoate of copper; see copper compounds.

Bichlorid of mercury; see corrosve sublimate.

Bisulfid of carbon; see sulfur compounds.

Blue Stone; see copper compounds.

Borax; see alkalies.

Bordeaux mixture; see copper compounds.

Camphor; see oils.

Carbolic Compounds.

Carbolic acid, carbolic soap, cresol, cresol soap, cresylic acid, cresylol, phenol, sheep dips, etc.

Label should show:

per cent. of cresylic acid.

per cent. of phenol.

per cent. of saponifier and character (see alkalies).

per cent. other ingredients.

Carbon tetrachlorids.

Label should show:

per cent. of carbon tetrachlorid (CCl_4).

per cent. of other ingredients.

Carbon bisulfid; see sulfur compounds.

Carbonate of copper; see copper compounds.

lime; see alkalies.

soda; see alkalies.

Castor Oil; see oils.

Caustic lime; see alkalies.

potash; see alkalies.

soda; see alkalies.

Citronella, oil of; see oils.

Copper Compounds.

Aceto arsenite; see arsenicals.

Ammonia for making "eau celest."

Label should show:

per cent. of ammonia (NH_4OH).

per cent. of other ingredients.

Bordeaux Mixture.

Label should show :

per cent. of copper (insoluble).

per cent. of other ingredients.

Blue Stone.—(Copper sulfate).

Label should show :

per cent. of copper sulfate ($\text{CuSO}_4 + 5\text{H}_2\text{O}$).

per cent. of copperas ($\text{FeSO} + 7\text{H}_2\text{O}$).

per cent. of other ingredients.

Copper Carbonate.

Label should show :

per cent. of copper oxid (CuO).

per cent. of other ingredients.

Copper Benzoate.

Label should show :

per cent. of copper benzoate ($\text{Cu}[\text{C}_6\text{H}_5\text{CO}_2] + 2\text{H}_2\text{O}$).

per cent. of other ingredients.

Copperas.

Label should show :

per cent. of copperas ($\text{FeSO}_4 + 7\text{H}_2\text{O}$).

per cent. of other ingredients.

Corrosive Sublimate.

Label should show :

per cent. of corrosive sublimate (HgCl_2).

per cent. of other ingredients.

Cresol ; see carbolic compounds.

Cresylic acid— see carbolic compounds.

Cresylol ; see carbolic compounds.

Crude oil ; see oils.

Cyanides.*Cyanides.*

Label should specify :

per cent. cyanogen (CN).

per cent. potassium (K).

per cent. sodium (Na).

per cent. inert substances.

per cent. chlorine (Cl).

The latter because of the decomposition of the Hydrocyanic acid when the percentage is high.

Sulfuric Acid.

Label should specify :

per cent. sulfuric acid (H_2SO_4).

per cent. water (H_2O).

per cent. other inert substances.

per cent. nitric acid (HNO_3).

The latter because of danger to vegetation when the percentage is high.

Distillate; see oils.

Distillate emulsions; see oils.

Emulsions, distillate; see oils.

kerosene; see oils.

Essential oils; see oils.

Fish oil; see oils.

soap; see oils.

Formaldehyde; see formalin.

Formalin.

Label should show:

per cent. of formaldehyde (CH_3COH).

Gasolene; see oils.

Hellebore; see alkaloids.

Iron sulphate; see copperas.

sulfid; see sulfur compounds.

Kerosene; see oils.

Lime; see alkalies.

air slaked; see alkalies.

caustic; see alkalies.

sulfur solution; see sulfur compounds.

Lye; see alkalies.

Mirbane, oil of; see oils.

Miscible oil; see oils.

Napthalene; see oils.

Nitrobenzene; see oils.

Napthalene; see oils.

Nicotene; see alkaloids.

sulfate; see alkaloids.

Oils.

Hydrocarbons.—Crude oil, distillate, kerosene, gasolene).

Label should show:

density (degrees Baumé).

flash test.

Hydrocarbons solids.—(Asphaltum, naphthalene.)

Label should show :

- per cent. of the hydrocarbon.
- per cent. of other ingredients.

Miscible oils and emulsions.

Label should show :

- per cent. of oil and character (see hydrocarbons).
- per cent. of emulsifier and character (see alkalies and carbolic compounds).
- per cent. of other ingredients.

Animal oils and soaps.—(Fish oil, whale oil).

Label should show :

- per cent. of oil and source (whether fish oil or whale oil).
- per cent. of saponifier and character (see alkalies).
- per cent. of other ingredients.

Vegetable oils and gums.—(Castor oil, camphor, nitrobenzene, oil of citronella, oil of mirbane, oil of peppermint, pine tar, resin, turpentine, etc.).

Label should show :

- per cent. of oil or gum and source (plant from which obtained).
- per cent. of other ingredients.

Pyrethrum.

Label should show :

- per cent. of oil present.

Red oil.

Label should show :

- per cent. of oleaic acid.
- per cent. of other ingredients.

Paris green ; see arsenicals.

Peppermint oil ; see oils.

Permanganate of Potash.

Label should show :

- per cent. of permanganate of potash (KMnO_4).
- per cent. of other ingredients.

Potash, caustic ; see alkalies.

Potassium, carbonate ; see alkalies.

cyanide ; see cyanides.

permanganate ; see permanganate of potash.

sulfid ; see sulfur compounds.

Phenol ; see carbolic compounds.

Phosphorus, Preparations containing.

Label should show :

per cent. of phosphorus (P).

per cent. of other ingredients.

Pine tar ; see oils.

Pyrethrum ; see oils.

Red oil ; see oils.

Resin ; see oils.

Soap ; see alkalies.

Soap cresol ; see carbolic compounds.

Soap powder ; see alkalies.

whale oil ; see oils.

fish oil ; see oils.

resin ; see oils.

Soda, caustic ; see alkalies.

Sodium carbonate ; see alkalies.

cyanide ; see cyanides.

Sulfate of copper ; see copper compounds.

iron ; see copperas.

Sulfur Compounds.

Sulfur.

Label should show :

per cent. sulfur (S), whether ground, sublimed or precipitated :

per cent. inert substances.

Lime sulfur solution.

Label should specify :

per cent. sulfur in solution (S).

per cent. inert substances.

density (degrees Baumé).

Potassium Sulfid.

Label should specify :

per cent. potassium sulfid (K_2S).

per cent. inert substances.

Iron Sulfid.

Label should show :

per cent. iron sulfid (FeS).

per cent. inert substances.

Carbon Bisulfid.

Label should show :

per cent. of carbon bisulfid (CS_2).

per cent. other ingredients.

Sulfuric acid ; see cyanides.

Sublimate, corrosive ; see sorrosive sublimate.

Sublimated sulfur ; see sulfur compounds.

Tar, pine ; see oils.

Tobacco extract ; see alkaloids.

stems ; see alkaloids.

Turpentine ; see oils.

Whale oil ; see oils.

soap ; see oils.

Zinc arsenite ; see arsenicals.

Many of these substances have large use for other purposes than as insecticides or fungicides and when sold for such other purposes do not come under the operation of this law.

Users of any of these substances who buy them as insecticides, or fungicides, obtain the advantage of the guarantee of the quality provided under this law.

COLLECTING OF SAMPLES—VIOLATION OF LAW.

Samples of insecticides are to be collected annually on or before September 1st of all registered brands and they are to be analyzed by official methods (Section 13).

The Director of the Agricultural Experiment Station is also authorized to cause samples to be taken at other times in a manner specified by law (Section 14).

Besides these official samples, unofficial samples may be taken by any user at any time and submitted for examination (Section 13), only official samples, however, will be made the basis of legal action (Section 5) and then only after a private hearing (Section 3) and public notice of violations of the law is to be given only after judgment of the court.

RULES AND REGULATIONS.

The rules and regulations adopted by the United States Government for the enforcement of the national insecticide act of 1910 are to be followed in holding the private hearing (Section 3).

These rules are printed in Circular 34 of the office of the Secretary. Those applying to the present law are given below.

Regulation 4. Hearings.

(Section 4, U. S. Act. Section 3, California Act.)

(a) If, from the examination or analysis, a sample appears to be adulterated or misbranded within the meaning of this act, notice thereof shall be given to the party from whom such sample was obtained and to such other interested parties as the Director of the Agricultural Experiment Station (Secretary of Agriculture) may direct. The hearings shall be had at places designated by the said Director (Secretary of Agriculture) most convenient for all parties concerned. These hearings shall be private and confined to questions of fact. The parties interested therein may appear in person or by attorney and may submit oral or written evidence to show any fault or error in the findings of the analyst or examiner. At the hearing the party cited, shall, upon request, be informed of the findings of the analyst or examiner.

Regulation 9. Abstraction of Valuable Constituents.

(Section 7.)

(a) A valuable constituent of an article is wholly abstracted therefrom, in the contemplation of the act, whenever the designation of the article imports its presence therein and the constituent has been wholly omitted therefrom in the preparation of the article or has been wholly removed from the completed article.

(b) A valuable constituent of an article is partly abstracted therefrom, in the contemplation of the act, whenever the designation of the article imports its presence therein and the constituent is not present in the usual or customary amount.

Regulation 10. Definition of Label.

(Section 8.)

The term label, as used in the act, includes any legend and descriptive matter or design printed, stenciled, stamped, seared, or

impressed upon the article or its container, and also includes circulars, pamphlets, etc., which are packed and go with the articles into the hands of the purchaser, and such letters, circulars, pamphlets, etc., to which reference is made either on the label attached to the package or to the package itself, or any circulars, pamphlets, etc., which accompany the package.

Regulation 11. When Labels Required.

(Section 8.)

Whenever, by the terms of the act, information is required to be on the label of an insecticide or fungicide, such as the statement of the percentage of arsenic contained therein, a label must be placed on the article in order that the statement can be made and the omission of a label does not excuse the absence of the required statement.

Regulation 12. Statement on Labels.

(Sections 7 and 8.)

All matter required by an act to be stated on the label of an article must be plainly and correctly stated on the face of the principal label in type sufficiently clear and in position sufficiently prominent to attract the immediate attention of the purchaser.

Regulation 13. Definition of Package.

(Section 8.)

The term "package" as used in the act, includes every carton, box, barrel, or other receptacle into which an insecticide or fungicide, Paris green, or lead arsenate is placed for use, handling, removal, shipment, or conveyance, and also a single container of such article or articles or several containers packed together.

Regulation 14. Definition of Insect.

(Section 6.)

The term "insect" as used in the act and these regulations, is understood to mean any of the numerous small invertebrate animals generally having the body more or less obviously segmented, for the most part belonging to the class Insecta, comprising six-legged, usually winged forms, as beetles, bugs, bees, flies, etc., and to other allied classes of arthropods whose members are wingless and usually have more than six legs, as spiders, mites, ticks, centipedes, wood lice, etc.

Regulation 15. False Statements in Circulars, etc.

An insecticide, fungicide, Paris green, or lead arsenate is misbranded under the provisions of the act if the package containing it

is accompanied by any circular, advertising or descriptive matter in or upon which there is any false, deceptive, or misleading statement, design, or device, or if such false, deceptive, or misleading statement, design, or device appears on any letter, circular, design, or descriptive matter to which reference is made on the label attached to the package or in any paper accompanying the package.

Regulation 16. Ingredients Required to be Declared.

(Section 8.)

(a) Insecticides (other than Paris greens and lead arsenates) and fungicides containing arsenic in any of its combinations or in the elemental form must bear a statement on the label showing the total amount of arsenic present (expressed as percentum of metallic arsenic) and also the amount present in water-solution form) expressed as per centum of metallic arsenic).

(b) Insecticides (other than Paris greens and lead arsenates) and fungicides containing inert substances, which do not prevent, destroy, repel, or mitigate insects or fungi, must bear a statement on the label of the name and percentage of each inert substance therein, unless the name and percentage of each active ingredient of the article is plainly and correctly stated, in which case it will be sufficient to state upon the label that the article contains inert substances, giving the correct percentages thereof.

Regulation 17. False and Misleading Statements on Labels.

(Section 8.)

The use of any false or misleading statement, design, or device appearing on any part of the label shall not be justified by any statement given as the opinion of an expert or other person, nor by any descriptive matter explaining the use of the false or misleading statement, design, or device.

Regulation 18. Name and Address of Manufacturer.

(Section 8.)

(a) The name of the manufacturer or producer or the place of manufacture need not be given upon the label, but if given must be the true name and true place. The words "Packed for,," "Distributed by,," or some equivalent phrase, shall be added to the label in case the name which appears upon the label is not that of the actual manufacturer or producer.

(b) When a person, firm, or corporation actually manufactures or produces an insecticide, fungicide, Paris green, or lead arsenate in two or more places the actual place of manufacture or production of each particular package need not be stated on the label except when, under the peculiar circumstances of the particular case, the mention of any such place to the exclusion of the others misleads the public.

(c) The use of a geographical name shall not be permitted in connection with an insecticide or fungicide not manufactured or produced in that place, when such name indicates that the article was manufactured or produced in that place.

(d) The use of a geographical name in connection with an insecticide or fungicide will not be deemed a misbranding when, by reason of long usage, it has come to represent a generic term and is used to indicate a style, type, or brand, or where it has come to represent a specific substance rather than the place of manufacture, but in all such cases the place where any such article is manufactured or produced shall be stated upon the principal label.

(e) A foreign name which is recognized as distinctive of a product of a foreign country shall not be used upon an article of domestic origin except as an indication of the type or style or quality of manufacture, and then only when so qualified that it is not offered for sale under the name of a foreign article.

Regulation 19. Substitution.

(Sections 7 and 8.)

When a substance of a recognized quality commonly used in the preparation of an insecticide or fungicide is replaced in part or in whole by another substance the name of the substituted substance shall appear upon the label.

Regulation 20. Guaranty.

(Section 9.)

A general guaranty may be filed with the Director of the Agricultural Experiment Station (Secretary of Agriculture) by the manufacturer or dealer and be given a serial number, which serial number should appear on every package of goods sold under such guaranty, with the words "Guaranteed by (insert name of guarantor) under the Insecticide Act of 1910." The following form of guaranty is suggested:

I (we), the undersigned, do hereby guarantee that the insecticides, Paris greens, lead arsenates, and fungicides manufactured, packed, distributed, or sold by me (us) (describing the same as fully as possible) are not adulterated or misbranded within the meaning of the Insecticide Act of 1910.

(Signature)

(Place of business)

(Date)

If the guaranty be not filed with the Director of the Agricultural Experiment Station (Secretary of Agriculture) it should identify and be attached to the bill of lading, bill of sale, or other schedule giving the description and amount of the article sold.

Regulation 27. Amendment of Regulations.

These regulations may be amended at any time without notice, with the concurrence of the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor.

THE INSECTICIDE LAW.

CALIFORNIA STATUTES OF 1911.

CHAPTER 653.

An Act to regulate the manufacture, sale, adulteration and misbranding of insecticides or fungicides or materials used for insecticidal or fungicidal purposes, and to provide penalties for the infraction thereof, and to appropriate money therefor. (Approved May 1, 1911.)

The People of the State of California, represented in senate and assembly, do enact as follows:

SECTION 1. That it shall be unlawful for any person to manufacture within this state any insecticide, Paris green, lead arsenate, or fungicide which is adulterated or misbranded within the meaning of this act; and any person who shall violate any of the provisions of this section shall be guilty of a misdemeanor, and shall upon conviction thereof, be fined not to exceed two hundred dollars for the first offense, and upon conviction for each subsequent offense be fined not to exceed three hundred dollars, or sentenced to imprisonment for not to exceed one year, or both such fine and imprisonment, in the discretion of the court. Such fines and those specified in section 2 of this act to be paid into the school fund of the county in which conviction is had.

SEC. 2. Any person who shall offer to deliver to any other person or any person who shall sell or offer for sale in this state any such adulterated or misbranded insecticide or Paris green or lead arsenate or fungicide which is adulterated or misbranded within the meaning of this act, or export or offer to export the same to any foreign country shall be guilty of a misdemeanor, and for such offense be fined not exceeding two hundred dollars for the first offense, and upon conviction for each subsequent offense not exceeding three hundred dollars, or to be imprisoned not exceeding one year, or both, in the discretion of the court; provided, that no article shall be deemed misbranded or adulterated within the provisions of this act when intended for export to any foreign country and prepared or packed according to the specifications or directions of the foreign purchaser; but if said article shall be in fact sold or offered for sale for domestic use or consumption, then this proviso shall not exempt said article from the operation of any of the provisions of this act.

SEC. 3. The examination of specimens of insecticides, Paris greens, lead arsenates and fungicides shall be made by the director of the agricultural experiment station of the University of California in person or by deputy, for the purpose of determining from such examination whether such articles are adulterated or misbranded within the meaning of this act; and if it shall appear from any such examination that any of such specimens are adulterated or misbranded within the meaning of this act, the said director shall cause notice thereof to be given to the party from whom such sample was obtained. Any party so notified shall be given an opportunity to be heard under the rules and regulations adopted by the United States government for the enforcement of the national insecticide act of 1910, and if it appears that any of the provisions of this act have been violated by such party, then the said director shall at once certify the facts to the proper district attorney, with a copy of the results of the analysis or the examination of such an article duly authenticated by the analyst or officer making such examination, under the oath of such officer. After judgment of the court, notice shall be given by publication in such manner as the said director may determine.

SEC. 4. That it shall be the duty of each district attorney to whom the said director shall report any violation of this act or present satisfactory evidences of any such violation, to cause appropriate proceedings to be commenced and prosecuted in the proper courts of the State of California without delay, for the enforcement of the penalties as in such case herein provided.

SEC. 5. In any action, civil or criminal, in any court in this state, a certificate, under the hand of said director, and the seal of said university, stating the results of any analysis purporting to have been made under the provisions of this act, shall be prima facie evidence of the fact that the sample or samples mentioned in said analysis or certificate were properly analyzed, contained the component parts stated in such certificate and analysis; and that the samples were taken from the parcels or packages or lots mentioned or described in said certificate.

SEC. 6. That the term "insecticide" as used in this act shall include any substance or mixture of substances intended to be used for preventing, destroying, repelling or mitigating any insects which may infest vegetation, man or other animals, or households, or be present in any environment whatsoever. The term Paris green as used in this act shall include the product sold in commerce as Paris green and chemically known as the aceto-arsenite of copper. The

term "lead arsenate" as used in this act shall include the product or products sold in commerce as lead arsenate and consisting chemically of products derived from arsenic acid (H_3AsO_4) by replacing one or more hydrogen atoms of lead. That the term "fungicide" as used in this act shall include any substance or mixture of substances intended to be used for preventing, destroying, repelling, or mitigating any and all fungi that may infest vegetation or be present in any environment whatsoever.

SEC. 7. That for the purpose of this act an article shall be deemed to be adulterated—

In case of Paris green: First, if it does not contain at least fifty per centum of arsenious oxide; second, if it contains arsenic in water-soluble forms equivalent to more than three and one-half per centum of arsenious oxide; third, if any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength.

In the case of lead arsenate: First, if it contains more than fifty per centum of water; second, if it contains total arsenic equivalent to less than twelve and one-half per centum of arsenic oxide (As_2O_5); third, if it contains arsenic in water-soluble forms equivalent to more than seventy-five one-hundredths per centum of arsenic oxide (As_2O_5); fourth, if any substances have been mixed and packed with it so as to reduce, lower, or injuriously affect its quality or strength; provided, however, that extra water may be added to lead arsenate (as described in this paragraph) if the resulting mixture is labeled lead arsenate and water, the percentage of extra water being plainly and correctly stated on the label.

In the case of insecticides or fungicides, other than Paris green and lead arsenate: First, if its strength or purity fall below the professed standard or quality under which it is sold; second, if any substance has been substituted wholly or in part for the article; third, if any valuable constituent of the article has been wholly or in part abstracted; fourth, if it is intended for use on vegetation and shall contain any substance or substances which, although preventing, destroying, repelling, or mitigating insects, shall be injurious to such vegetation when used.

SEC. 8. That the term "misbranded" as used herein shall apply to all insecticides, Paris greens, lead arsenates, or fungicides or articles which enter into the composition of insecticides or fungicides, the package or label of which shall bear any statement, design or device regarding such article or the ingredients or substances contained

therein which shall be false or misleading in any particular, and to all insecticides, Paris greens, lead arsenates, or fungicides which are falsely branded as to the state, territory, or country in which they are manufactured or produced.

That for the purpose of this act an article shall be deemed to be misbranded—

In the case of insecticides, Paris greens, lead arsenates, and fungicides: First, if it be an imitation or offered for sale under the name of another article; second, if it be labeled or branded so as to deceive or mislead the purchaser, or if the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package; third, if in package form, and the contents are stated in terms of weight or measure they are not plainly and correctly stated on the outside of the package.

In the case of insecticides (other than Paris green and lead arsenates) and fungicides; first, if it contains arsenic in any of its combinations or in the elemental form and the total amount of arsenic present (expressed as per centum of metallic arsenic) is not stated on the label; second, if it contains arsenic in any of its combinations or in the elemental form and the amount of arsenic in water-soluble forms (expressed as per centum of metallic arsenic) is not stated on the label; third, if consists partially or completely of any inert substance or substances which do not prevent, destroy, repel or mitigate insects or fungi and does not have the names and percentage amounts of each and every one of such inert ingredients plainly and correctly stated on the label; provided, however, that in lieu of naming and stating the percentage amount of each and every inert ingredient the producer may at his discretion state plainly upon the label the correct names and percentage amounts of each and every ingredient of the insecticide or fungicide having insecticidal or fungicidal properties, and make no mention of the inert ingredients, except in so far as to state the total percentage of inert ingredients present.

SEC. 9. That no dealer shall be prosecuted under the provisions of this act when he can establish a guaranty signed by the wholesaler, jobber, manufacturer, or other party from whom he purchased such articles, to the effect that the same is not adulterated or misbranded within the meaning of this act, designating it. Said guaranty to afford protection shall contain the name and address of the party or parties making the sale of such articles to each dealer, and an itemized statement showing the articles purchased; or a general guaranty may be filed with the secretary of the United States department of agri-

culture by the manufacturer, wholesaler, jobber or other party in the United States and be given a serial number, which number shall appear on every package of insecticide or fungicide sold under such guaranty with the words "guaranteed by" (the name of the guarantor) under the insecticide [act] of 1910; and in such case said party or parties shall be amenable to the prosecutions, fines, and other penalties which shall attach in due course to the dealer under the provisions of this act.

SEC. 10. That the word "person" as used in this act shall be construed to mean both the plural and the singular, as the case demands, and shall include corporations, companies, societies and associations. When construing and enforcing the provisions of this act, the act, omission or failure of any officer, agent, or other person acting for or employed by any corporation, company, society or association, within the scope of his employment or office, shall in every case be also deemed to be the act, omission, or failure of such corporation, company, society, or association, as well as that of the other person.

SEC. 11. Every lot, parcel, or package of commercial insecticides or fungicides or materials to be used for fungicidal or insecticidal purposes, sold, offered, or exposed for sale, within this state, shall be accompanied by a plainly printed label, stating the name, brand, and trade mark, if any there be, under which the insecticide or fungicide is sold, the name and address of the manufacturer, importer, or dealer, the place of manufacture, and a chemical analysis, stating the percentages claimed to be therein, of the substance or substances alleged to have insecticidal properties, specifying the form or forms in which each is present, and the materials from which all constituents of the insecticides are derived. All analyses of substances for which methods have been agreed upon by the American association of official agricultural chemists, are to be made by such official methods. In the case of those insecticides the selling price of which is less than one-half cent per pound, said label need only give a correct general statement of the nature and composition of the insecticide it accompanies.

SEC. 12. The manufacturer, importer, agent of, or dealer in any commercial insecticide, or materials used for insecticidal purposes, the selling price of which to the consumer is not less than one-half cent ($\frac{1}{2}$ cent) per pound, shall, before same is offered for sale, obtain a certificate of registration from the secretary of the board of regents of the University of California, countersigned by the said university, authorizing the sale of insecticides in this state, and shall securely fix to each lot, parcel, or package of insecticide the word "registered"

with the number of registry. The manufacturer, importer, agent, or dealer obtaining such registry shall pay to the said secretary the sum of one (\$1.00) dollar, to be applied as provided in section 18 of this act; such registration shall expire on the thirtieth day of June of the fiscal year for which it was given; provided, the provisions of this section shall not apply to any agent whose principals shall have obtained a certificate of registration as herein provided. Every such manufacturer, importer, agent, or dealer, who makes or sells, or offers for sale, any such substances, under a name or brand, shall file, on or before the first day of July, in each year, a statement, under oath, with the director of the agricultural experiment station of the University of California, stating such name or brand, and stating the component parts, in accordance with the provisions of section 11 of this act, of the substances to be sold or offered for sale, or manufactured under each such name or brand.

SEC. 13. The said director shall annually, on or before the first day of September, take samples in accordance with the provisions of section 14 hereof, of the substance made, sold, or offered for sale, under every such name or brand, and cause analyses to be made thereof in accordance with the provisions of section 11 hereof, and said analyses may include such other determinations as said director may at any time deem advisable. Dealers in or manufacturers of insecticides must give free access to the director of the agricultural experiment station, or his duly authorized deputy, to all the materials which they may place on the market for sale in California. Whenever the analysis certified by the said director shall show a deficiency of not more than five per cent of the substance alleged to have insecticidal properties, the statement of the manufacturer or importer, as required in section 11 of this act, shall not be deemed to be false in the meaning of this act; provided, that this act shall not apply to sales of insecticidal materials made to a registered manufacturer of insecticides or to sales for export outside of this state; provided further, that the said director of the agricultural experiment station of the University of California shall, upon the receipt of a sample of insecticide, accompanied with a nominal fee of one dollar furnish to the user of said commercial insecticide such examination or analysis of the sample as will substantially establish the conformity or non-conformity of the said insecticide to the guarantee under which it is sold.

SEC. 14. The director of the agricultural experiment station of the University of California, in person or by deputy, is hereby authorized to take a sample, not exceeding two pounds in weight for analysis

by the said director or his deputies, from any lot, parcel or packages of insecticide or fungicide, or material, or mixture, used for insecticidal or fungicidal purposes, which may be in the possession of any manufacturer, importer, agent or dealer; but said sample shall be drawn in the presence of said party or parties in interest, or their representatives. In lots of five tons or less, samples shall be drawn from at least ten packages, or if less than ten packages are present, all shall be sampled; in lots of over five tons, not less than twenty packages shall be sampled. The samples so drawn shall be thoroughly mixed, and from it two equal samples shall be drawn and placed in glass vessels, carefully sealed, and a label placed on each, stating the name or brand of the insecticide or material sampled, the name of the party from whose stock the sample was drawn, and the time and place of drawing; and said label shall also be signed by the said director or his deputy making such inspection, and by the party or parties in interest, or their representatives present at the drawing and sealing of said samples. One of said duplicate samples shall be retained by the party whose stock was sampled, and the other by the director of the agricultural experiment station of the University of California.

SEC. 15. The director of the agricultural experiment station of the University of California shall publish in bulletin form, from time to time, at least annually, the results of the analysis, hereinbefore provided, with such additional information as circumstances may advise.

SEC. 16. There is hereby provided for carrying out the purposes of this act, out of any moneys in the state treasury not otherwise appropriated, the sum of five thousand dollars for each fiscal year hereafter, beginning with the first day of July, 1911.

SEC. 17. All persons charged with the enforcement or execution of any of the provisions of this act shall not directly or indirectly be interested in the sale, manufacture or distribution of any insecticide or fungicide affected by this act.

SEC. 18. All moneys, whether received from registry and analytical fees or special license fees shall be paid to the secretary of the board of regents of the University of California for the use of said board in carrying out the provisions of this act.

SEC. 19. An act to prevent fraud in the sale of Paris green used as an insecticide. Chap. LIII, p. 69, Statutes of 1901, is hereby repealed.

SEC. 20. This act shall take effect and be in force from and after July first, 1911.

